HYDATA

SOFTWARE CO., LTD.

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USERMANUAL

SRT FOR SEAGATE SCSI HDD

VERSION 2.0

Technical Support

You may obtain and update the latest software version via our website. If you encounter any problem during software installation or action, please feel free to contact our suppliers.

About User Manual

SRT FOR SEAGATE SCSI HDD user manual was published in March 2010. This user manual mainly describes SRT FOR SEAGATE SCSI HDD installation and configuration. Please read this manual thoroughly to understand data recovery technology regarding SCSI drives.

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1 Introduction

The SCSI hard drives are widely used for servers and other high-end software products, however, 24-hour interrupted working as well as many years of running, the damage rate of SCSI HDD appears to be rising in recent years. Generally the server HDD accommodates the very important data, if the data was lost, the consequence is hard to imagine. SRT FOR SEAGATE SCSI HDD is specially designed to repair the firmware issue occurring on Seagate SCSI HDD. The users who know the professional knowledge can solve SCSI HDD firmware issue before, so we developed SRT (SCSI Disk Recovery Tool)-wizard version. With the easy-to-use feature, the end users can repair SCSI firmware at the professional level.

1.1 Product Features

- **SRT FOR SEAGATE SCSI HDD** is focusing on repairing Seagate SCSI drives
- **SRT FOR SEAGATE SCSI HDD** can change setting parameters
- **SRT FOR SEAGATE SCSI HDD** supports SCSI interface (50/68/80pin)

1.2 Product Application

SCSI stands for Small Computer System Interface (pronounced *scuzzy*), is a set of standards for physically connecting and transferring data between computers and peripheral devices, such as hard drive, floppy drive, CD-ROM, printer, scanner, etc. The SCSI standards define commands, protocols, and electrical and optical interfaces. SCSI is most commonly used for hard drives and tape drives.

According to different standard, the SCSI standards consist of four versions: SCSI-1, SCSI-2, SCSI-3 and SAS.

SCSI-1

SCSI-1 belongs to original SCSI and it is obsolete so far, SCSI-1 features an 8-bit parallel bus with a 40 MBps (5 MB/s) transfer rate.

SCSI-2

SCSI-2 is an improved version of SCSI-1. SCSI-2 is based on CCS which is a minimum set of 18 basic commands included, which can be running on all hardware platforms. By the support of Fast SCSI and Wide SCSI, the transfer rate of SCSI-2 has increased on the basis of SCSI-1. A feature called command queuing gave the SCSI device the ability to execute command in an order that would be most efficient. Fast SCSI delivers a 10 MB/s transfer rate. It doubles to 20 MB/s (called Fast-Wide SCSI) when combined with 16 bit bus.

SCSI-3

Before Adaptec and later SCSITA codified the terminology, the first parallel SCSI devices that exceeded the SCSI-2 capabilities were simply designated SCSI-3. These devices, also known as Ultra SCSI and fast-20 SCSI, were introduced in 1996. The bus speed doubles to 20 MB/s for narrow (8 bit) systems and 40 MB/s for wide (16-bit). The maximum cable length stayed at 3 meters but single-ended Ultra SCSI developed an undeserved reputation for extreme sensitivity to cable length and condition (faulty cables, connectors or terminators were often to blame for instability problems). SCSI-3 has many advances over SCSI-2 such as Serial SCSI. This feature will allow data transfer up to 100MB/s through a six-conductor coaxial cable. SCSI-3 solves many of the termination and delay problems of older SCSI versions. SCSI-3 eases SCSI installation woes by being more plug-and-play in nature, such as automatic SCSI ID assigning and termination. SCSI-3 also supports 32 devices while SCSI-2 supports only 8.

SCSI-3 changed the document structure, SCSI-3 is not one document with all the different layers and electrical interfaces, but a collection of documents that cover the physical layer, the basic protocol specific to that electrical interface, the primary command set layer (SPC) and the specific protocol layer. The specific protocol layer contains the Hard Disk interface Commands in the Block Commands (SBC), Steam Commands for tape drives (SSC), Controller Commands for RAID arrays (SCC), Multimedia Commands (MMC), Media Changer Commands (MCC) and enclosure services commands (SES) for example. There is an overall architectural model (SAM). Elements of SCSI-3 are in use today in the forms of Ultra-Wide and Ultra SCSI drives. Ultra SCSI delivers 20MB/s over the 8-bit bus. Ultra-Wide SCSI incorporates the 16-bit bus, and the speed reaches to 40MB/s.

Different SCSI specifications:

Name	Specification	# of Devices	Bus Width	Bus Speed	MBps
Asynchronous SCSI	SCSI-1	8	8 bits	5 MHz	4 MBps
Synchronous SCSI	SCSI-1	8	8 bits	5 MHz	5 MBps
Wide	SCSI-2	16	16 bits	5 MHz	10 MBps
Fast	SCSI-2	8	8 bits	10 MHz	10 MBps
Fast/Wide	SCSI-2	16	16 bits	10 MHz	20 MBps
Ultra	SCSI-3 SPI	8	8 bits	20 MHz	20 MBps
Ultra/Wide	SCSI-3	8	16 bits	20 MHz	40 MBps

	SPI				
Ultra2	SCSI-3 SPI-2	8	8 bits	40 MHz	40 MBps
Ultra2/Wide	SCSI-3 SPI-2	16	16 bits	40 MHz	80 MBps
Ultra3	SCSI-3 SPI-3	16	16 bits	40 MHz	160 MBps
Ultra320	SCSI-3 SPI-4	16	16 bits	80 MHz	320 MBps

SAS

Serial Attached SCSI (SAS) as a new storage interface is evolved from the Parallel SCSI physical storage interface, which is developed by ANSI INCITS T10 Technical Committee. Compared to parallel connection, SAS offers much faster communication and easier configuration. In addition, SAS provides device compatibility to SATA and uses similar cabling. Note: SAS backplane connectors can accept SATA drives, SATA backplane connectors will NOT accept SAS drives.

SAS adopts a point-to-point connection and allows multiple ports to be aggregated into a single controller, either built on the mother board or as an add-on. Every SAS interface can support 128 components or extensions and this technology is built upon robust and tested parallel SCSI communication technology. Cable installation can be easily realized without daisy-chaining adopted within a computer system because of point-to-point method.

- The first-generation SAS provides 1.5 Gb/s (150 MB/s) transfer rate for each drive within an array
- The second-generation SAS provides 3.0 Gb/s (300 MB/s) transfer rate for each drive within an array
- The third-generation SAS provides 6.0 Gb/s (600 MB/s) transfer rate for each drive within an array

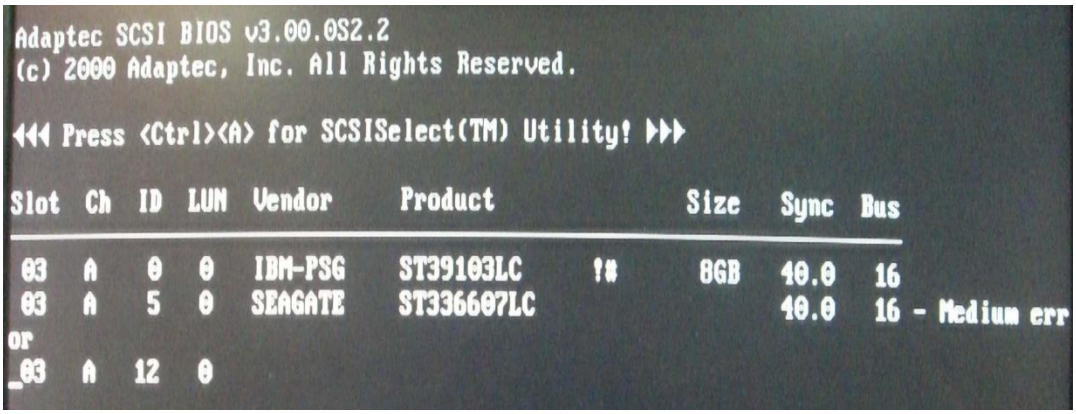
Based on Seagate SCSI drives with various standard interfaces, **SRT FOR SEAGATE SCSI HDD** may adopt corresponding internal mechanism to perform repairing.

SRT FOR SEAGATE SCSI HDD-Wizard Version

This utility is specially designed to repair **Model Available, No Capacity**, **Self Test Reports Error**, **LLF not Completed**, **Disk Parameters Loss**, etc. "**One Click Repair**" function we designed using factory instructions is much safer and faster than **Module Reset** to repair SCSI drives. The faults like **Self-Test sound available**, **no clicking sound**, **Media Error** or **Start Unit Request Failed** which is reported by SCSI card will lead to **Model**

Available, No Capacity, and this situation is usually due to translator damage or GList error. **SRT FOR SEAGATE SCSI HDD** is easy-to-use, you only need to select SCSI drive to be repaired, and click "Repair HDD" button to repair on your own. **SRT FOR SEAGATE SCSI HDD** is not only applicable to professional data recovery companies but also network administrators using servers in large and medium enterprises.

The following is the prompt information detected by SCSI Adaptec from the patient drive


Adaptec SCSI BIOS v3.00.0S2.2
(c) 2000 Adaptec, Inc. All Rights Reserved.
Press <Ctrl><A> for SCSISelect(TM) Utility!
Slot Ch ID LUN Vendor Product Size Sync Bus
03 A 0 0 IBM-PSG ST39103LC !# 8GB 40.0 16
03 A 5 0 SEAGATE ST336607LC 40.0 16 - Medium err
or
03 A 12 0

Although information displayed varies in different SCSI card, the software can be used to detect and diagnose drives once no normal capacity showing.

1.3 Reasons for Failure

One of the common situations resulting in drive faults is translator damage which is caused by incorrect records to track. The hard disk performs surface scanning repeatedly to find bad sectors and adds them to defect lists, and current translator can be damaged by an error when such sectors reach to a certain amount. In this situation, the hard disk will report "0 Capacity" or "Capacity Error", and the user data is not accessible.

1.4 Supported Model List

We specially designed an intelligent core inside SRT FOR SEAGATE SCSI HDD, the repairing function will be automatically adjusted according to factory instruction set, and this software may support more SEAGATE SCSI drive models. The model list will keep updating and includes the original Seagate models as well as OEM models, please be careful to check.

The following drive models are applicable to "Common Defect Repair" available in SRT FOR SEAGATE SCSI HDD.

Seagate Original Model

Series	Capacity	Model	Interface
Cheetah 18LP	ST318203LW	18GB	SCSI
	ST318203LWV	18GB	SCSI
	ST318203LC	18GB	SCSI
	ST318203LCV	18GB	SCSI
	ST39103LW	9.1GB	SCSI
	ST39103LWV	9.1GB	SCSI
	ST39103LC	9.1GB	SCSI
	ST39103LCV	9.1GB	SCSI
	ST318233LWV	18GB	SCSI
	ST318233LCV	18GB	SCSI
	ST39133LWV	9.1GB	SCSI
	ST39133LCV	9.1GB	SCSI
	ST318203FC	18GB	FC
	ST39103FC	9.1GB	FC
Cheetah 18XL	ST39204LW	9.1GB	SCSI
	ST318404LW	18GB	SCSI
	ST39204LC	9.1GB	SCSI
	ST318404LC	18GB	SCSI
Cheetah 36LP	ST336704LC	36GB	SCSI
	ST336704LCV	36GB	SCSI
	ST336704LW	36GB	SCSI
	ST336704LWV	36GB	SCSI

Cheetah 36LP	ST336704FCV	36GB	FC
	ST336704FC	36GB	FC
Cheetah 36XL	ST39205LW	9.1GB	SCSI
	ST39205LC	9.1GB	SCSI
	ST318405LW	18GB	SCSI
	ST318405LC	18GB	SCSI
	ST336705LW	36GB	SCSI
	ST336705LC	36GB	SCSI
Cheetah 36ES	ST318406LW	18GB	SCSI
	ST318406LC	18GB	SCSI
	ST336706LW	36GB	SCSI
	ST336706LC	36GB	SCSI
Cheetah 73LP	ST336605LW	36GB	SCSI
	ST336605LC	36GB	SCSI
	ST336605LCV	36GB	SCSI
	ST373405LC	73GB	SCSI
	ST373405LW	73GB	SCSI
	ST373405LWV	73GB	SCSI
	ST373405LCV	73GB	SCSI
Cheetah 10K.6	ST336607LW	36GB	SCSI
	ST373307LW	73GB	SCSI
	ST3146807LW	146GB	SCSI
	ST336607LC	36GB	SCSI
	ST336607FC	36GB	FC

Cheetah 10K.6	ST373307LC	73GB	SCSI
	ST373307FC	73GB	FC
	ST3146807LC	146GB	SCSI
	ST3146807FC	146GB	FC
Cheetah 10K.7	ST373207LW	73GB	SCSI
	ST3146707LW	146GB	SCSI
	ST3300007LW	300GB	SCSI
	ST373207LC	73GB	SCSI
	ST373207FC	73GB	FC
	ST3146707LC	146GB	SCSI
	ST3146707FC	146GB	FC
	ST3300007LC	300GB	SCSI
	ST3300007FC	300GB	FC
Cheetah X15	ST39251LC	9.1GB	SCSI
	ST318451LC	18GB	SCSI
	ST39251LW	9.1GB	SCSI
	ST318451LW	18GB	SCSI
	ST318451FC	18GB	FC
Cheetah X15 36LP	ST318432LC	18GB	SCSI
	ST318452LC	18GB	SCSI
	ST336732LC	36GB	SCSI
	ST336752LC	36GB	SCSI
	ST318432LW	18GB	SCSI
	ST318452LW	18GB	SCSI

Cheetah X15 36LP	ST336732LW	36GB	SCSI
	ST318452FC	18GB	FC
	ST336752LW	36GB	SCSI
	ST336752FC	36GB	FC
Cheetah 15K.3	ST318453LC	18GB	SCSI
	ST336753LC	36GB	SCSI
	ST373453LC	73GB	SCSI
	ST318453LW	18GB	SCSI
	ST318453FC	18GB	FC
	ST336753LW	36GB	SCSI
	ST336753FC	36GB	FC
	ST373453LW	73GB	SCSI
	ST373453FC	73GB	FC
Cheetah 15K.4	ST336754LC	36GB	SCSI
	ST373454LC	73GB	SCSI
	ST3146854LC	146GB	SCSI
	ST336754LW	36GB	SCSI
	ST336754FC	36GB	FC
	ST336754SS	36GB	SAS
	ST373454LW	73GB	SCSI
	ST373454FC	73GB	FC
	ST373454SS	73GB	SAS
	ST3146854LW	146GB	SCSI
	ST3146854FC	146GB	FC

Cheetah 15K.4	ST3146854SS	146GB	SAS

Seagate OEM IBM Models

Series	Capacity	Model	Interface
Cheetah 18LP	IBM-ESXS-ST318203LW	18GB	SCSI
	IBM-ESXS-ST318203LWV	18GB	SCSI
	IBM-ESXS-ST318203LC	18GB	SCSI
	IBM-ESXS-ST318203LCV	18GB	SCSI
	IBM-ESXS-ST39103LW	9.1GB	SCSI
	IBM-ESXS-ST39103LWV	9.1GB	SCSI
	IBM-ESXS-ST39103LC	9.1GB	SCSI
	IBM-ESXS-ST39103LCV	9.1GB	SCSI
	IBM-ESXS-ST318233LWV	18GB	SCSI
	IBM-ESXS-ST318233LCV	18GB	SCSI
	IBM-ESXS-ST39133LWV	9.1GB	SCSI
	IBM-ESXS-ST39133LCV	9.1GB	SCSI
	IBM-ESXS-ST318203FC	18GB	FC
	IBM-ESXS-ST39103FC	9.1GB	FC
Cheetah 18XL	IBM-ESXS-ST39204LW	9.1GB	SCSI
	IBM-ESXS-ST318404LW	18GB	SCSI
	IBM-ESXS-ST39204LC	9.1GB	SCSI
	IBM-ESXS-ST318404LC	18GB	SCSI
Cheetah 36LP	IBM-ESXS-ST336704LC	36GB	SCSI
	IBM-ESXS-ST336704LCV	36GB	SCSI
	IBM-ESXS-ST336704LW	36GB	SCSI

Cheetah 36LP	IBM-ESXS-ST336704LWV	36GB	SCSI
	IBM-ESXS-ST336704FCV	36GB	FC
	IBM-ESXS-ST336704FC	36GB	FC
Cheetah 36XL	IBM-ESXS-ST39205LW	9.1GB	SCSI
	IBM-ESXS-ST39205LC	9.1GB	SCSI
	IBM-ESXS-ST318405LW	18GB	SCSI
	IBM-ESXS-ST318405LC	18GB	SCSI
	IBM-ESXS-ST336705LW	36GB	SCSI
	IBM-ESXS-ST336705LC	36GB	SCSI
Cheetah 36ES	IBM-ESXS-ST318406LW	18GB	SCSI
	IBM-ESXS-ST318406LC	18GB	SCSI
	IBM-ESXS-ST336706LW	36GB	SCSI
	IBM-ESXS-ST336706LC	36GB	SCSI
Cheetah 73LP	IBM-ESXS-ST336605LW	36GB	SCSI
	IBM-ESXS-ST336605LC	36GB	SCSI
	IBM-ESXS-ST336605LCV	36GB	SCSI
	IBM-ESXS-ST373405LC	73GB	SCSI
	IBM-ESXS-ST373405LW	73GB	SCSI
	IBM-ESXS-ST373405LWV	73GB	SCSI
	IBM-ESXS-ST373405LCV	73GB	SCSI
Cheetah 10K.6	IBM-ESXS-ST336607LW	36GB	SCSI
	IBM-ESXS-ST373307LW	73GB	SCSI
	IBM-ESXS-ST3146807LW	146GB	SCSI
	IBM-ESXS-ST336607LC	36GB	SCSI

Cheetah 10K.6	IBM-ESXS-ST336607FC	36GB	FC
	IBM-ESXS-ST373307LC	73GB	SCSI
	IBM-ESXS-ST373307FC	73GB	FC
	IBM-ESXS-ST3146807LC	146GB	SCSI
	IBM-ESXS-ST3146807FC	146GB	FC
Cheetah 10K.7	IBM-ESXS-ST373207LW	73GB	SCSI
	IBM-ESXS-ST3146707LW	146GB	SCSI
	IBM-ESXS-ST3300007LW	300GB	SCSI
	IBM-ESXS-ST373207LC	73GB	SCSI
	IBM-ESXS-ST373207FC	73GB	FC
	IBM-ESXS-ST3146707LC	146GB	SCSI
	IBM-ESXS-ST3146707FC	146GB	FC
	IBM-ESXS-ST3300007LC	300GB	SCSI
	IBM-ESXS-ST3300007FC	300GB	FC
Cheetah X15	IBM-ESXS-ST39251LC	9.1GB	SCSI
	IBM-ESXS-ST318451LC	18GB	SCSI
	IBM-ESXS-ST39251LW	9.1GB	SCSI
	IBM-ESXS-ST318451LW	18GB	SCSI
	IBM-ESXS-ST318451FC	18GB	FC
Cheetah X15 36LP	IBM-ESXS-ST318432LC	18GB	SCSI
	IBM-ESXS-ST318452LC	18GB	SCSI
	IBM-ESXS-ST336732LC	36GB	SCSI
	IBM-ESXS-ST336752LC	36GB	SCSI
	IBM-ESXS-ST318432LW	18GB	SCSI

Cheetah X15 36LP	IBM-ESXS-ST318452LW	18GB	SCSI
	IBM-ESXS-ST336732LW	36GB	SCSI
	IBM-ESXS-ST318452FC	18GB	FC
	IBM-ESXS-ST336752LW	36GB	SCSI
	IBM-ESXS-ST336752FC	36GB	FC
Cheetah 15K.3	IBM-ESXS-ST318453LC	18GB	SCSI
	IBM-ESXS-ST336753LC	36GB	SCSI
	IBM-ESXS-ST373453LC	73GB	SCSI
	IBM-ESXS-ST318453LW	18GB	SCSI
	IBM-ESXS-ST318453FC	18GB	FC
	IBM-ESXS-ST336753LW	36GB	SCSI
	IBM-ESXS-ST336753FC	36GB	FC
	IBM-ESXS-ST373453LW	73GB	SCSI
	IBM-ESXS-ST373453FC	73GB	FC
Cheetah 15K.4	IBM-ESXS-ST336754LC	36GB	SCSI
	IBM-ESXS-ST373454LC	73GB	SCSI
	IBM-ESXS-ST3146854LC	146GB	SCSI
	IBM-ESXS-ST336754LW	36GB	SCSI
	IBM-ESXS-ST336754FC	36GB	FC
	IBM-ESXS-ST336754SS	36GB	SAS
	IBM-ESXS-ST373454LW	73GB	SCSI
	IBM-ESXS-ST373454FC	73GB	FC
	IBM-ESXS-ST373454SS	73GB	SAS
	IBM-ESXS-ST3146854LW	146GB	SCSI

Cheetah 15K.4	IBM-ESXS-ST3146854FC	146GB	FC
	IBM-ESXS-ST3146854SS	146GB	SAS

Seagate OEM HP Models

Series	Capacity	Model	Interface
COMPAQ	BD018122C0	18GB	SCSI
COMPAQ	BD03695A27	36GB	SCSI
COMPAQ	BD07285A25	73GB	SCSI
COMPAQ	BD03695A24	36GB	SCSI
COMPAQ	BD07288277	73GB	SCSI
COMPAQ	BD14685A26	146GB	SCSI
COMPAQ	BD01864552	18GB	SCSI
HP	B82-80C2	9.1 GB	SCSI

1.5 Function Description

You will have to assume all losses or risks in the process of using this software product. In the maximum scope of relevant law permitting, **HYDATA SOFTWARE** and its resellers will not undertake any assurance duty and condition for any flow, whether expressed or implied, including(but not limited)assuming responsibility for implication that is suitable for a particular purpose and non-infringement duty.

During software products development, we have done lots of accurate tests to all products. Although this software has a powerful kernel, the results will be affected by levels of use or corruption reasons, it's likely that it would not meet needs of all users or indicating functions. HONGYU DATA SOFTWARE SERIES would supply you with a kind of free limited demo version and a fully functional trial of evaluation version, it is strongly recommended you download and install one of versions mentioned above before purchase, it may help you to estimate the function and obtain the easy-to-use functions. Please confirm all functions to decide whether to purchase.

2 Hardware Installation

This chapter briefly describes initial installation.

2.1 Product Information

Please confirm the following accessories involved in the product prior to installing software.

- HASP USB key ---1 pc

Or

Note: one of the two USB keys is for lifetime-use, the other is time-limited (i.e. you may use it during a limited period).

- Installation Program CD---1 pc

2.2 System Requirements

Operation Requirements:

- Windows 2000/XP/2003/7, we suggest you choose Windows 2000 or Windows XP 32-bit version.

Hardware Configuration Requirements:

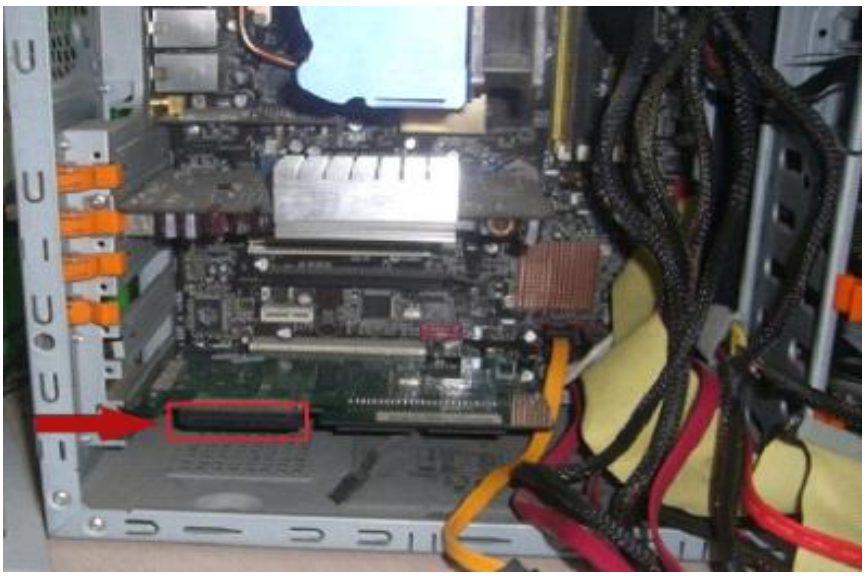
- CPU: P4 1.6 and above

- Memory: 256MB and above
- Hard disk: 1.5G and above
- Display: 17-inch and above
- Resolution: 1024*768 and above

2.3 Hardware Installation

Please connect required hardware as per the following procedures:

1. Hook up SCSI card to the PCI slot



2. Connect SCSI HDD to SCSI card (50/68/80pin)

80pin connector is as follows:

68pin Drive Connection:

3. Start System:

Install SRT FOR SEAGATE SCSI HDD (please refer to the third Section)

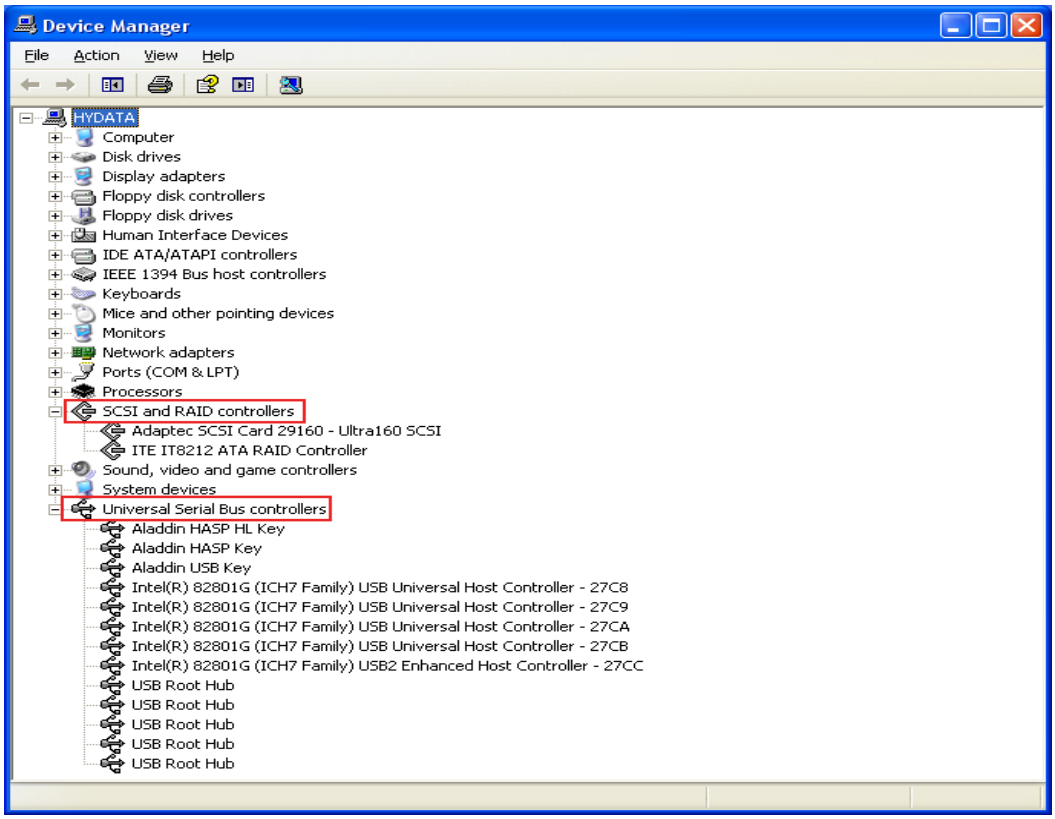
4. Insert HASP USB Key into USB port

5. Restart the computer system

6. Check the installation status from the Device Manager

Click on your **start button** -> then **Run** and type in "devmgmt.msc". You may see the model of SCSI Adapter and disk drive status from Device Manager in Microsoft Windows.

The figure is as follows:


Device Manager
File Action View Help
HYDATA
Computer
Disk drives
Display adapters
Floppy disk controllers
Floppy disk drives
Human Interface Devices
IDE ATA/ATAPI controllers
IEEE 1394 Bus host controllers
Keyboards
Mice and other pointing devices
Monitors
Network adapters
Ports (COM & LPT)
Processors
SCSI and RAID controllers
Adaptec SCSI Card 29160 - Ultra160 SCSI
ITE IT8212 ATA RAID Controller
Sound, video and game controllers
System devices
Universal Serial Bus controllers
Aladdin HASP HL Key
Aladdin HASP Key
Aladdin USB Key
Intel(R) 82801G (ICH7 Family) USB Universal Host Controller - 27C8
Intel(R) 82801G (ICH7 Family) USB Universal Host Controller - 27C9
Intel(R) 82801G (ICH7 Family) USB Universal Host Controller - 27CA
Intel(R) 82801G (ICH7 Family) USB Universal Host Controller - 27CB
Intel(R) 82801G (ICH7 Family) USB2 Enhanced Host Controller - 27CC
USB Root Hub
USB Root Hub
USB Root Hub
USB Root Hub
USB Root Hub

NOTE: under **Universal Serial Bus controllers**: Aladdin HASP Key not available in trail version

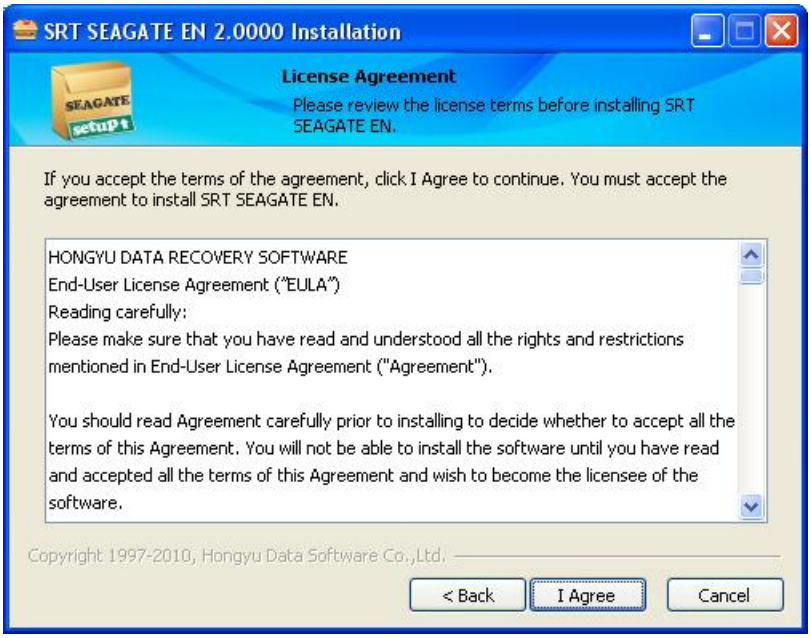
7. Hardware installation complete

3 Software Installation

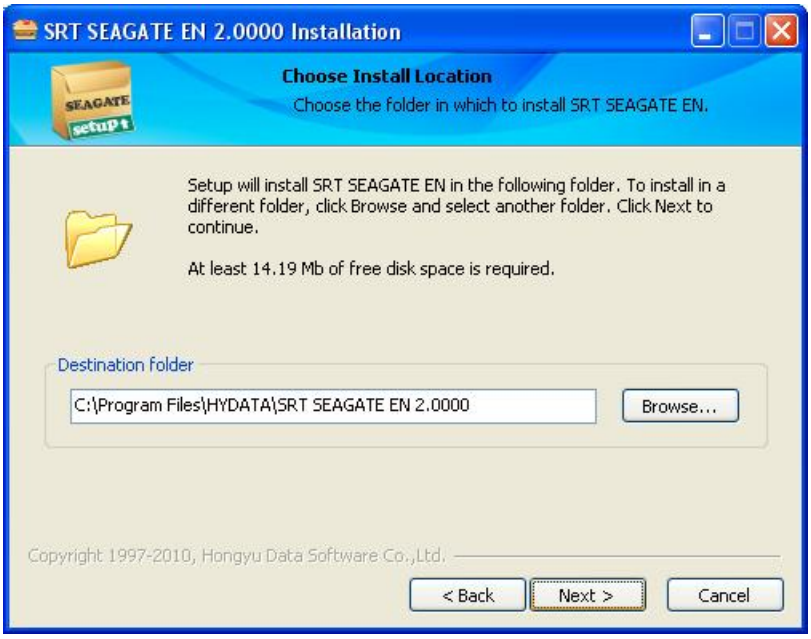
3.1 Software Installation Procedures

1. Insert software CD into floppy drive or download the software package from HYDATA website, double-click an executable file named "**SEAGATEEN.exe**" to perform installation.
The **Agreement License** dialog box will display then, if you want to continue, please click **I Agree** button.

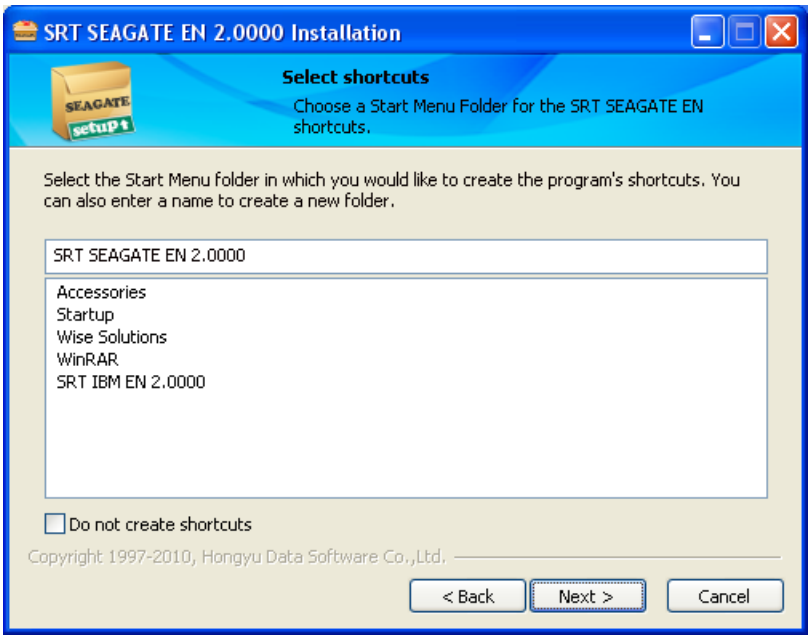
SRT SEAGATE EN 2.0000 Installation
Welcome to the SRT SEAGATE EN Setup Wizard
This wizard will guide you through the installation of SRT SEAGATE EN.
It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.
Click Next to continue.
SEAGATE
HYDATA
SRT FOR SEAGATE SCSI
Next >
Cancel


SRT SEAGATE EN 2.0000 Installation
License Agreement
Please review the license terms before installing SRT SEAGATE EN.
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install SRT SEAGATE EN.
HONGYU DATA RECOVERY SOFTWARE
End-User License Agreement ("EULA")
Reading carefully:
Please make sure that you have read and understood all the rights and restrictions mentioned in End-User License Agreement ("Agreement").
You should read Agreement carefully prior to installing to decide whether to accept all the terms of this Agreement. You will not be able to install the software until you have read and accepted all the terms of this Agreement and wish to become the licensee of the software.
Copyright 1997-2010, Hongyu Data Software Co.,Ltd.
< Back
I Agree
Cancel

2. Click "**Next**", go to installation interface, the system gives a default path: C:\Program Files\HYDATA\SRT SEAGATE EN 2.0000, you may also click the **Browse** button to select a new folder.

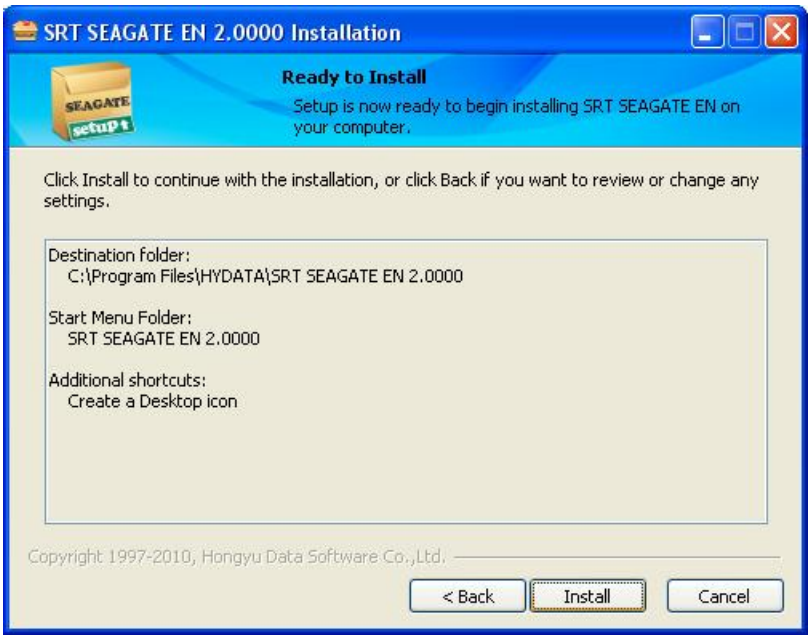

SRT SEAGATE EN 2.0000 Installation
Choose Install Location
Choose the folder in which to install SRT SEAGATE EN.
Setup will install SRT SEAGATE EN in the following folder. To install in a different folder, click Browse and select another folder. Click Next to continue.
At least 14.19 Mb of free disk space is required.
Destination folder
C:\Program Files\HYDATA\SRT SEAGATE EN 2.0000
Browse...
Copyright 1997-2010, Hongyu Data Software Co.,Ltd.
< Back
Next >
Cancel

3. Click "Next" button to enter the window where you can select the folder in the **Start** menu for **SRT FOR SEAGATE SCSI** shortcut.

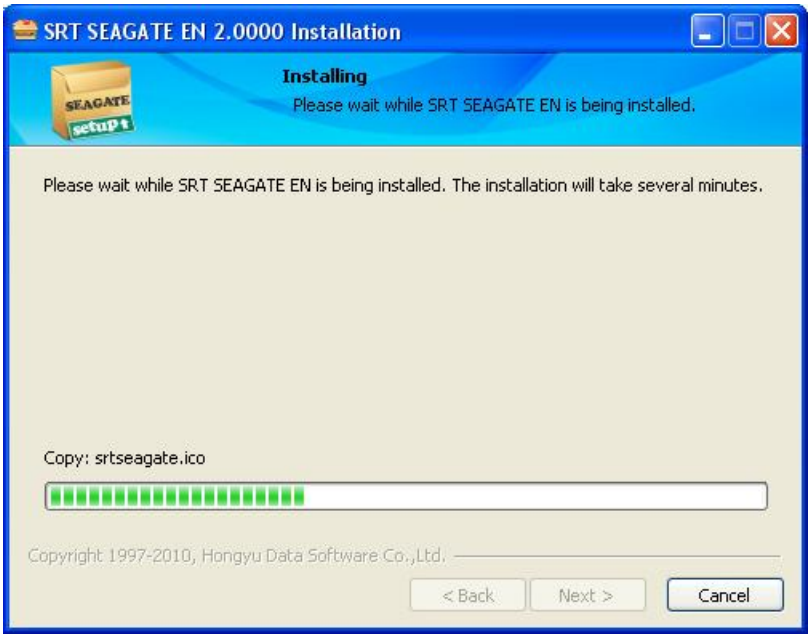

SRT SEAGATE EN 2.0000 Installation
Select shortcuts
Choose a Start Menu Folder for the SRT SEAGATE EN shortcuts.
Select the Start Menu folder in which you would like to create the program's shortcuts. You can also enter a name to create a new folder.
SRT SEAGATE EN 2.0000
Accessories
Startup
Wise Solutions
WinRAR
SRT IBM EN 2.0000
Do not create shortcuts
Copyright 1997-2010, Hongyu Data Software Co.,Ltd.
< Back
Next >
Cancel

SRT SEAGATE EN 2.0000 Installation
Select shortcuts
Select additional shortcuts.
Select any additional shortcuts for SRT SEAGATE EN that you would like created by the installation:
Create a Desktop icon
Copyright 1997-2010, Hongyu Data Software Co.,Ltd.
< Back
Next >
Cancel

4. Press the **Install** button to start **SRT FOR SEAGATE SCSI** installation process.


SRT SEAGATE EN 2.0000 Installation
Ready to Install
Setup is now ready to begin installing SRT SEAGATE EN on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination folder:
C:\Program Files\HYDATA\SRT SEAGATE EN 2.0000
Start Menu Folder:
SRT SEAGATE EN 2.0000
Additional shortcuts:
Create a Desktop icon
Copyright 1997-2010, Hongyu Data Software Co.,Ltd.
< Back
Install
Cancel

5. Click "Next", Installation Program starts to copy files required for running program to installation directory.


SRT SEAGATE EN 2.0000 Installation
Installing
Please wait while SRT SEAGATE EN is being installed.
Please wait while SRT SEAGATE EN is being installed. The installation will take several minutes.
Copy: srtseagate.ico
Copyright 1997-2010, Hongyu Data Software Co.,Ltd.
< Back
Next >
Cancel

6. Click **Finish**, and the installation process is successfully completed.

SRT SEAGATE EN 2.0000 Installation
Completing the SRT SEAGATE EN Setup Wizard
SRT SEAGATE EN has been installed on your computer.
Click Finish to close this wizard.
HYDATA
SRT FOR SEAGATE SCSI
Finish
Cancel

Note: You must reboot and load the new drive after you install SCSI HDD Adapter or add a new SCSI HDD. If device not found by the system or software, you may try to reboot your computer.

4 Menu Description and User Guide

4.1 Main Menu

Main Menu consists of four functions:

SEAGATE
HYDATA
SRT FOR SEAGATE SCSI
HELP
VER 2.0000
PLEASE SELECT REQUIRED OPERATION FUNCTION
ACCESSORY FUNCTIONS
RAPIDLY CHANGE HDD CAPACITY, BLOCK SIZE, READ P/GLIST & ADD TO GLIST, STANDARD LOW-LEVEL FORMATTING, ETC.
REPAIR " MEDIUM ERROR "
REPAIR " Medium Error " FAILURE THROUGH FIRMWARE PARAMETERS MODIFICATION AND FAST DETECTED HDD FAILURE TYPES.
ABOUT
EXIT
CHINA HARBIN HONGYU DATA SOFTWARE CO.,LTD.COPYRIGHT
HTTP://EN.HYDATA.COM

4.1.1 Accessory Function

This function includes **Display P/GList**, **Add to GList**, **Change HDD Capacity** & **Block Size**, **HDD Formatting**, etc.

4.1.2 Repair "Medium Error"

It mainly focuses on "model available, no capacity", which is the most important function of SRT FOR SEAGATE SCSI HDD. The specific function is available in professional version, the trail version only provides detection function before repairing.

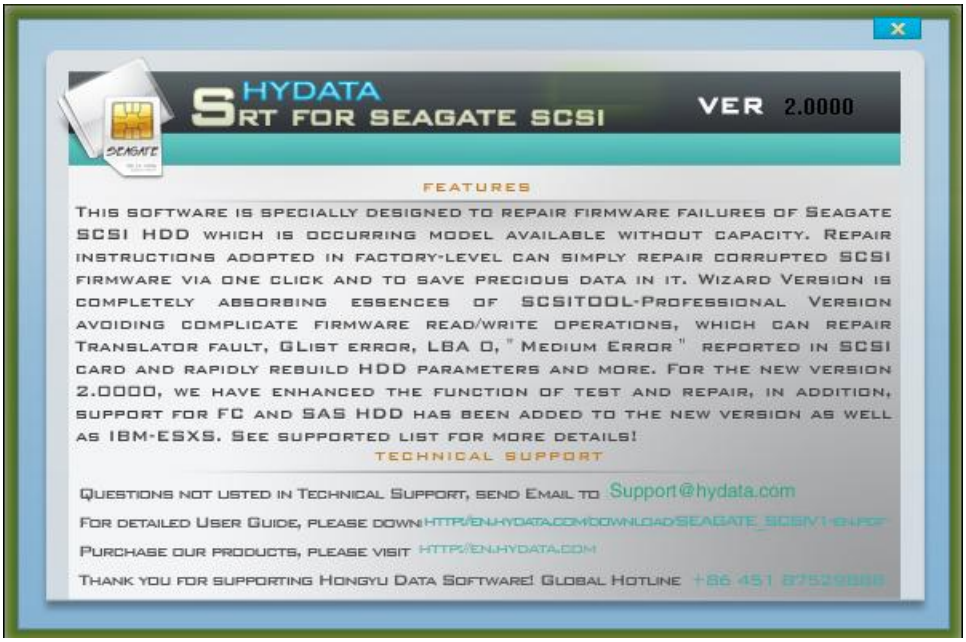
Note: professional function involved in both two menus above, internal parameters of HDD will be modified and affected by error use.

4.1.3 About

It mainly includes the version information regarding SRT FOR SEAGATE SCSI HDD.

4.1.4 Help

It mainly includes brief product introduction, download address of user manual, after-sale contacts, etc.


HYDATA
SRT FOR SEAGATE SCSI
VER 2.0000
FEATURES
THIS SOFTWARE IS SPECIALLY DESIGNED TO REPAIR FIRMWARE FAILURES OF SEAGATE SCSI HDD WHICH IS OCCURRING MODEL AVAILABLE WITHOUT CAPACITY. REPAIR INSTRUCTIONS ADOPTED IN FACTORY-LEVEL CAN SIMPLY REPAIR CORRUPTED SCSI FIRMWARE VIA ONE CLICK AND TO SAVE PRECIOUS DATA IN IT. WIZARD VERSION IS COMPLETELY ABSORBING ESSENCES OF SCSITOOL-PROFESSIONAL VERSION AVOIDING COMPLICATE FIRMWARE READ/WRITE OPERATIONS, WHICH CAN REPAIR TRANSLATOR FAULT, GLIST ERROR, LBA 0, " MEDIUM ERROR " REPORTED IN SCSI CARD AND RAPIDLY REBUILD HDD PARAMETERS AND MORE. FOR THE NEW VERSION 2.0000, WE HAVE ENHANCED THE FUNCTION OF TEST AND REPAIR, IN ADDITION, SUPPORT FOR FC AND SAS HDD HAS BEEN ADDED TO THE NEW VERSION AS WELL AS IBM-ESXS. SEE SUPPORTED LIST FOR MORE DETAILS!
TECHNICAL SUPPORT
QUESTIONS NOT LISTED IN TECHNICAL SUPPORT, SEND EMAIL TO Support@hydata.com
FOR DETAILED USER GUIDE, PLEASE DOWN
PURCHASE OUR PRODUCTS, PLEASE VISIT HTTP://EN.HYDATA.COM
THANK YOU FOR SUPPORTING HONGYU DATA SOFTWARE! GLOBAL HOTLINE

4.2 User Guide

4.2.1 Connection Notices

Seagate SCSI HDD must be detected by this software before repairing.

Please pay attention to the following operations when connecting multiple SCSI devices:

- Narrow (50pin) SCSI controller can make a daisy chain to seven extra SCSI devices. Counting the controller, there are eight SCSI devices totally.
- Wide (68pin) SCSI controller can make a daisy chain to fifteen extra SCSI devices. There are sixteen SCSI devices totally through counting the controller.

If connect the two Narrow (50pin) SCSI controllers to SCSI interface on separate system board, each controller may connect with seven SCSI devices. There are sixteen SCSI devices totally through counting the controller.

We suggest you that not use SCSI devices in different width on the same SCSI chain or the same SCSI channel, otherwise the data transfer rate will get slow. The only exception is when connecting SCSI device in super-width to other 68pin device, it will slow down the speed of detection and repair.

If the multiple devices are used, the device will be separated between Channel A and B. The length of cable on the second channel should not exceed 18 inch.

If you want to use two controllers, each controller is able to use the SCSI device in different width and speed. To connect a 68pin data line with 50pin SCSI device controller, you need to adopt built-in cable adapter or external cable adapter.

All SCSI controllers must allocate unique SCSI ID (0-7 or 8-15) to SCSI devices installed. The controller identifies the SCSI device according to SCSI ID (not SCSI device address). The communication between controller and SCSI device will not be affected by transferring SCSI device from one position to another position on SCSI chain.

Open all external SCSI devices before turning the power on, and SCSI controller enabled can identify the external devices.

4.2.2 Jumper Notices

Configure drive options

For option jumper locations and definitions refer to Figures 1, 2, and 3. Drive default mode parameters are not normally needed for installation.

• Ensure that the SCSI ID of the drive is not the same as the host adapter. Most host adapters use SCSI ID 7 because ID 7 is the highest priority on both 8 and 16 bit data buses.

• If multiple devices are on the bus set the drive SCSI ID to one that is not presently used by other devices on the bus.

• If the drive is the only device on the bus, attach it to the end of the SCSI bus cable. The user, system integrator, or host equipment manufacturer must provide external terminators.

Drive ID/option select header

Figures 1 and 2 show views of the drive ID select jumper connectors. Figure 3 shows the option select jumper connector for all models. Figure 1 shows the drive's J5-auxiliary jumper connector. Both J5-auxiliary and J6 have pins for selecting drive ID and for connecting the remote LED cable. Only one or the other should be used, although using both at the same time would not damage the drive. The notes following the figures describe the functions of the various jumper positions on the connectors J2, J5-Auxiliary and J6.

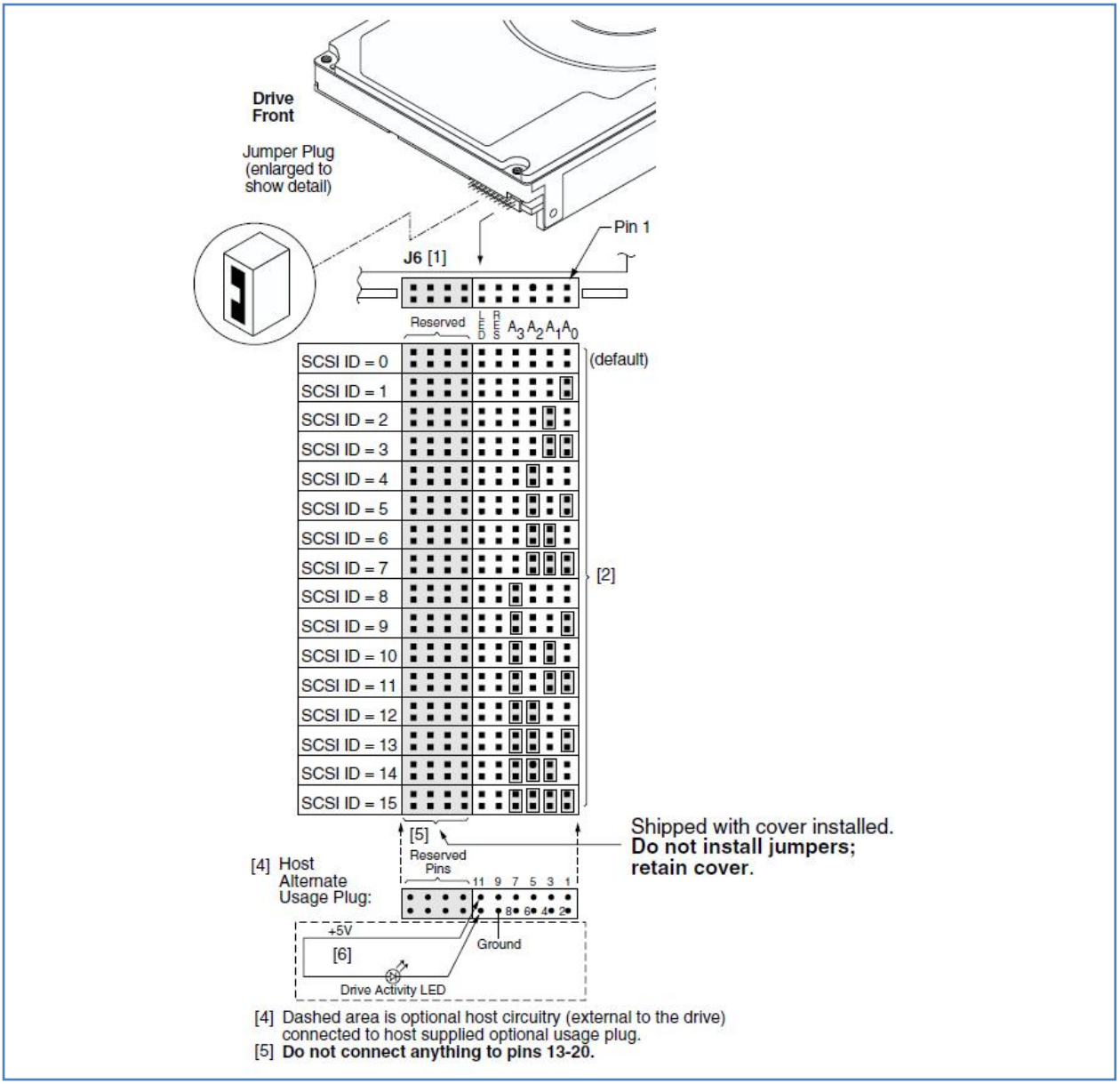


Figure 1 J6 jumper header

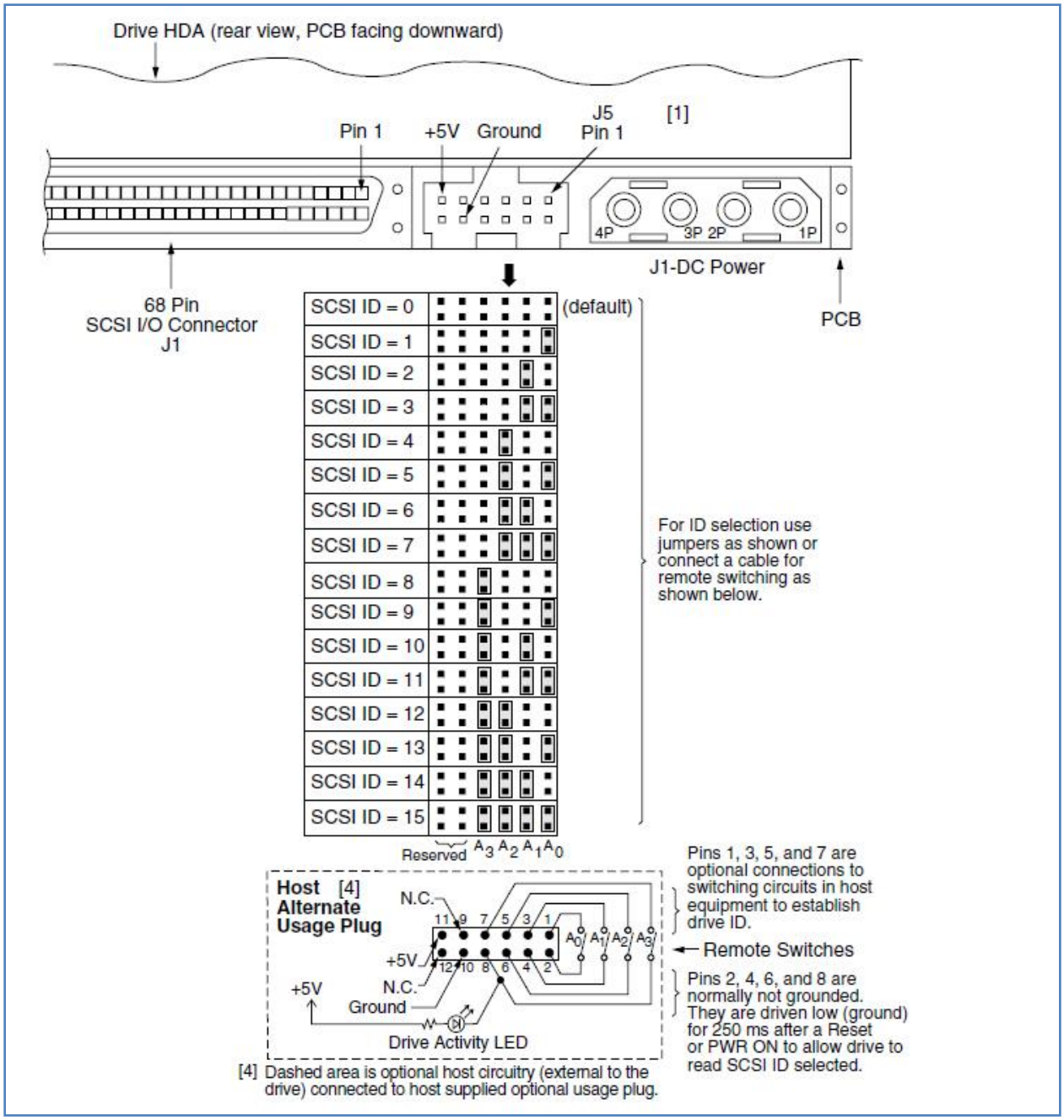

Drive HDA (rear view, PCB facing downward)
Pin 1
+5V
Ground
J5
Pin 1
[1]
4P
3P
2P
1P
J1-DC Power
68 Pin
SCSI I/O Connector
J1
PCB
SCSI ID = 0
SCSI ID = 1
SCSI ID = 2
SCSI ID = 3
SCSI ID = 4
SCSI ID = 5
SCSI ID = 6
SCSI ID = 7
SCSI ID = 8
SCSI ID = 9
SCSI ID = 10
SCSI ID = 11
SCSI ID = 12
SCSI ID = 13
SCSI ID = 14
SCSI ID = 15
(default)
For ID selection use jumpers as shown or connect a cable for remote switching as shown below.
Reserved
A3 A2 A1 A0
Host [4] Alternate Usage Plug
N.C.
+5V
+5V
N.C.
Ground
Drive Activity LED
Pins 1, 3, 5, and 7 are optional connections to switching circuits in host equipment to establish drive ID.
Remote Switches
Pins 2, 4, 6, and 8 are normally not grounded. They are driven low (ground) for 250 ms after a Reset or PWR ON to allow drive to read SCSI ID selected.
[4] Dashed area is optional host circuitry (external to the drive) connected to host supplied optional usage plug.

Figure 2 J5 jumper header (on LW models only)

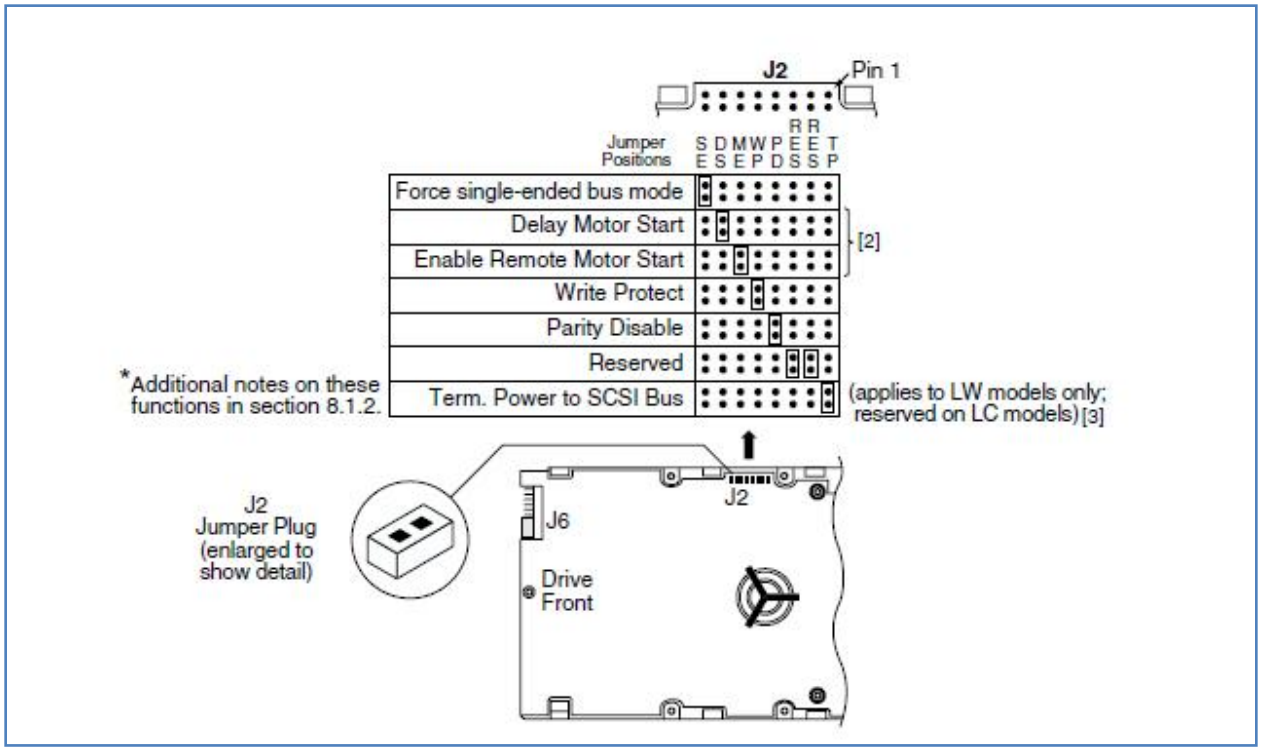


Figure3 J2 option select header (on LW models only)

Notes for Figures 1, 2, and 3:

[1] Notes explaining the functions of the various jumpers on jumper header connectors J2, J5, and J6 are given here and in Section 8.1.2. The term “default” means as standard OEM units are configured with a jumper on those positions when shipped from factory. “Off” means no jumper is installed; “On” means a jumper is installed. OFF or ON underlined is factory default condition. The PCBA on LC models does not have connector J5. The J5 connector signals conform to SFF-8009 Revision 2.0, Unitized Connector for Cabled Drives, signal assignments for auxiliary connectors.
[2] These signals are also on 80-pin J1 I/O connector.
[3] Voltage supplied by the drive.
[4] Dashed area is optional host circuitry (external to the drive) connected to host supplied optional usage plug.
[5] Do not connect anything to J5 pins 9, 11-12 or J6 pins 13-20.
[6] Connect an external Drive Activity LED to J6 pins 11 and 12 (see Figure 1), or to J5 pin 8 (see Figure2) and the drives +5V power source, through an appropriately sized current limiting resistor. The drive provides an internal 150 ohm current limiting resistor for the J6 connection.

Function description

Note. J2 does not exist on LC models and is supported on LW models only.

J2 jumper installation		Jumper function description
SE		
On		Forces drive to use single-ended I/O drivers/receivers only.
Off		Drive can operate on the interface in low voltage differential mode or single-ended, depending on the voltage state of the I/O “DIFFSNS” line. Default is SE jumper not installed.
DS	**ME**	
Off	Off	Spindle starts immediately after power up - Default setting.
Off	On	Drive spindle does not start until Start Unit command received from host.
On	Off	Spindle Startup is delayed by SCSI ID times 12 seconds after power is applied, i.e., drive 0 spindle starts immediately when DC power connected, drive 1 starts after 12 second delay, drive 2 starts after 24 second delay, etc.
On	On	Drive spindle starts when Start Unit command received from host. Delayed start feature is overridden and does not apply when ME jumper is installed.
WP		
On		Entire drive is write protected.
Off		Drive is not write protected. Default is WP jumper not installed.
PD		
On		Parity checking and parity error reporting by the drive is disabled.
Off		Drive checks for parity and reports result of parity checking to host. Default is PD jumper not installed.
RES		
Off		Reserved jumper position. Default is no RES jumper installed.
TP		
Off		The drive does not supply terminator power to external terminators or to the SCSI bus I/O cable.
On		Drive supplies power to SCSI bus I/O cable. When drives have differential I/O circuits, a jumper on the TP position may be needed to power external terminators (see system documentation). These drives do not have terminator circuits on the drive.

Note. J2 does not exist on LC models and is supported on LW models only.

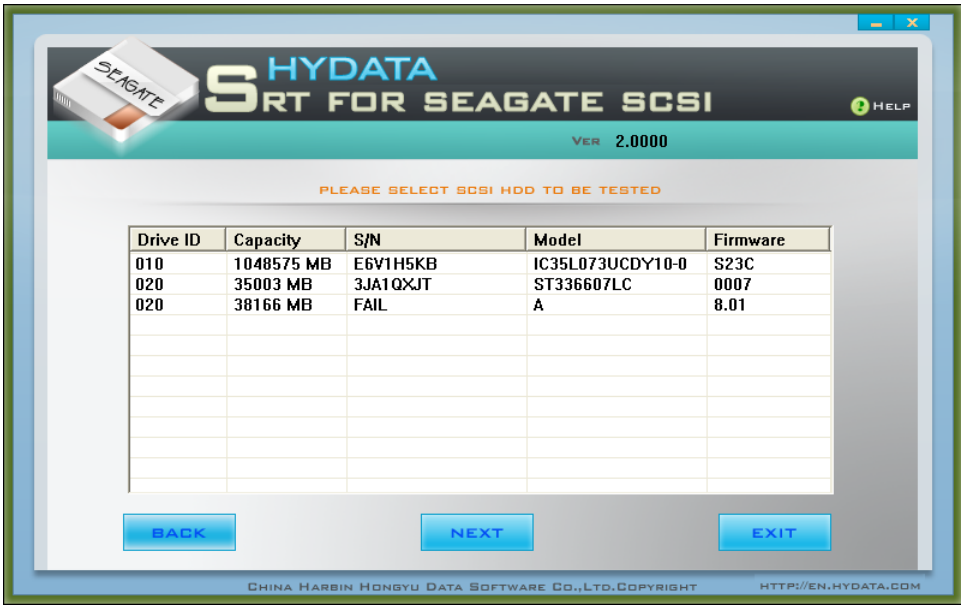
4.3 Function Description and Operation

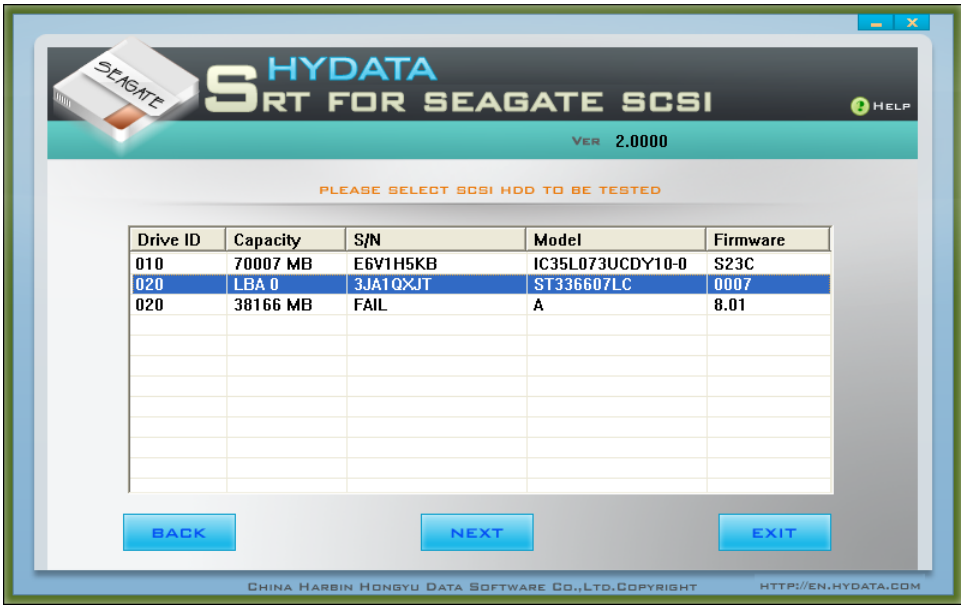
4.3.1 SEAGATE SCSI HDD Checking

Before repairing SCSI HDD selected, you may make a detection using "HDD Checking" button. This button is used to evaluate if your SCSI HDD can be repaired by SRT FOR SEAGATE SCSI HDD besides viewing the bios of SCSI Adapter. SRT's detection process is designed by the characteristics of all damage HDD, some normal hard drives with data existing in GList can also pass the detection, and this function is available in demo version. You may use this function to decide whether you need to purchase SRT FOR SEAGATE SCSI HDD.

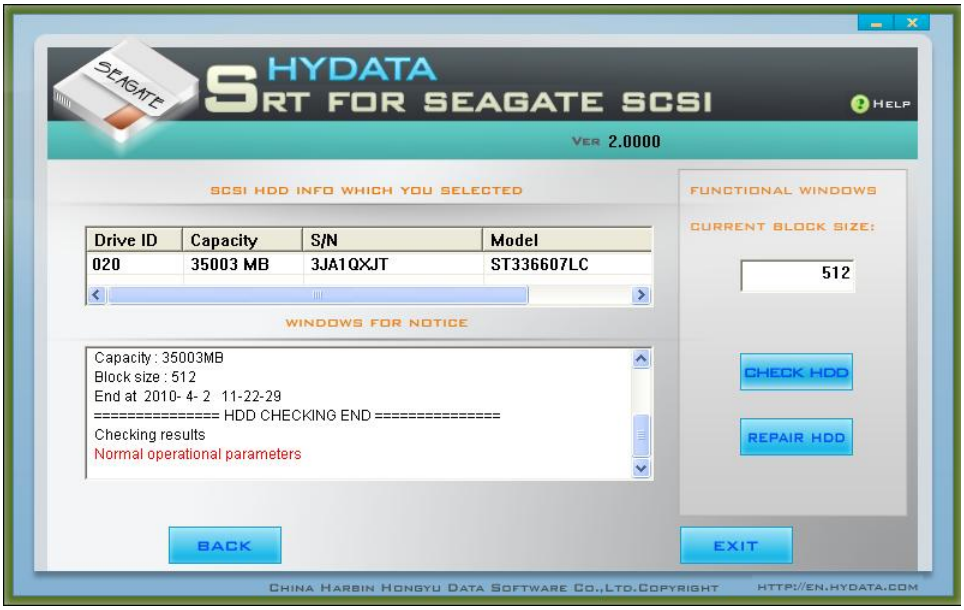
The detailed procedures are as follows:

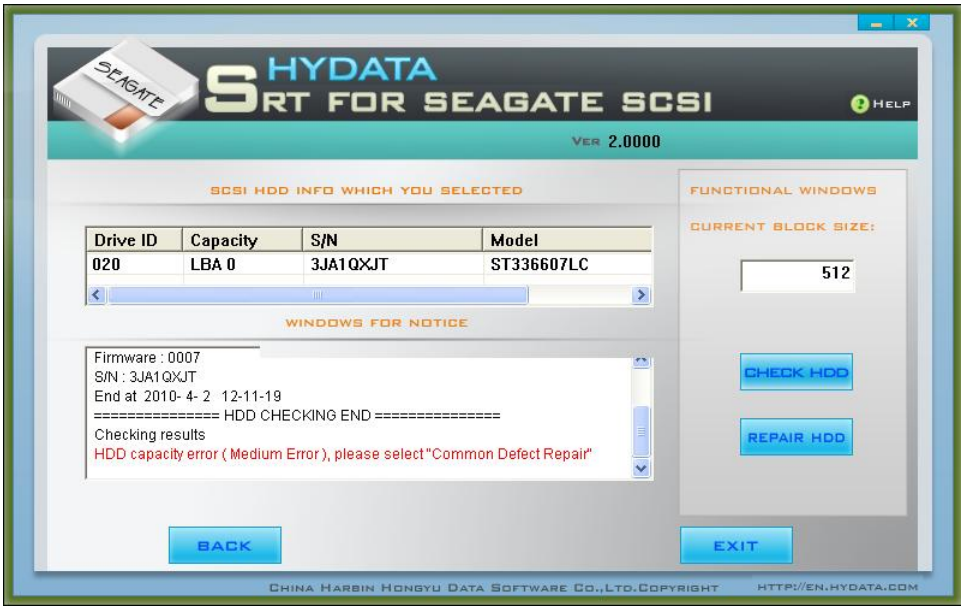
1. Choose the Seagate SCSI HDD which you need to detect, the software interface will show HDD ID, Capacity, SN, Model and Firmware, the following figure is normal status of Seagate SCSI HDD and "Capacity=0" respectively.


HYDATA
SRT FOR SEAGATE SCSI
HELP
VER 2.0000
PLEASE SELECT SCSI HDD TO BE TESTED
Drive ID | Capacity | S/N | Model | Firmware
010 | 1048575 MB | E6V1H5KB | IC35L073UCDY10-0 | S23C
020 | 35003 MB | 3JA1QXJT | ST336607LC | 0007
020 | 38166 MB | FAIL | A | 8.01
BACK
NEXT
EXIT
CHINA HARBIN HONGYU DATA SOFTWARE CO.,LTD.COPYRIGHT
HTTP://EN.HYDATA.COM


HYDATA
SRT FOR SEAGATE SCSI
HELP
VER 2.0000
PLEASE SELECT SCSI HDD TO BE TESTED
Drive ID | Capacity | S/N | Model | Firmware
010 | 70007 MB | E6V1H5KB | IC35L073UCDY10-0 | S23C
020 | LBA 0 | 3JA1QXJT | ST336607LC | 0007
020 | 38166 MB | FAIL | A | 8.01
BACK
NEXT
EXIT
CHINA HARBIN HONGYU DATA SOFTWARE CO.,LTD.COPYRIGHT
HTTP://EN.HYDATA.COM

2. After HDD selection, click "Next" button to enter the window where the HDD selected will be displayed on the top-left of the interface, click "Check HDD" under Current Block Size on the right, and then the detection information will show on the bottom left of window.





3. If it is a normal Seagate SCSI HDD, the display window will show start time, HDD vendor, model, firmware, SN, capacity, block size, end time and detection results.

If it is a SCSI HDD with "0 LBA" fault, the window will show start time, HDD vendor, model, firmware, SN, end time and detection results.

==========Start HDD Checking==========

Start Time 2010-4-2 11-21-34

HDD Vendor：SEAGATE

Model：ST336607LC

Firmware：0007

SN：3JA1QXJT

Capacity：35003MB

Block Size：512

End Time 2010-4-2 11-22-29

==========HDD Checking Completed==========

Detection Result(s):

HDD Working Parameters are Normal

```
================== Start HDD Checking ==================

Start Time 2010-4-2  12-10-38

HDD Vendor：SEAGATE

Model：ST336607LC

Firmware：0007

SN：3JA1QXJT

End Time 2010-4-2  12-11-19

================== HDD Checking Completed ==================

Detection Result(s):

HDD Capacity Error (Medium Error), you may use "Common Defect Repair" function.
```

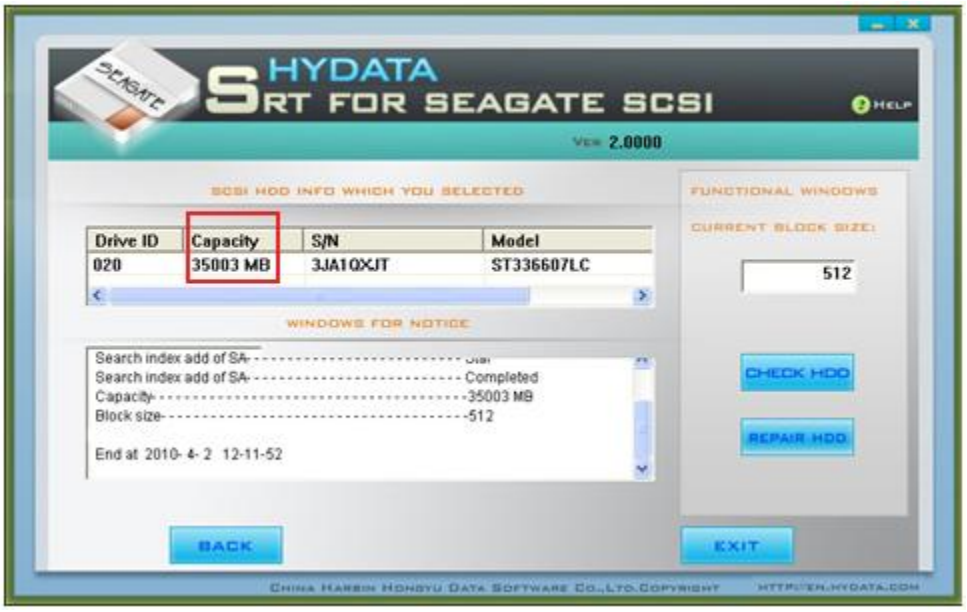
After detection, we suggest you use the most important function of this software-Common Defect Repair. Please refer to the next section for more details.

4.3.2 SEAGATE SCSI HDD Repair and Description

If drive detected by **SRT FOR SEAGATE SCSI HDD** is showing "0 LBA" under Capacity item, it indicates "Medium Error". In this situation, you may use "HDD Repair" function.

1. Click **Repair "Medium Error"** button in the main menu, and select patient drive which has been detected and can be repaired through "HDD Repair" function.

2. Click **"HDD Repair"** button, the figure is as shown below:



This moment, the normal capacity has been displayed on the top-left of drive attribution window. On the lower-left, it shows:

```
==================Start HDD Repair==================

      Start Time 2010-4-2  12-11-49


      HDD Repair----------------------------------Start

      HDD Repair----------------------------------Successful

      Capacity------------------------------------35003MB

      Block Size----------------------------------512


      End at 2010-4-2  12-11-52
```

4.4 Accessory Function and Description

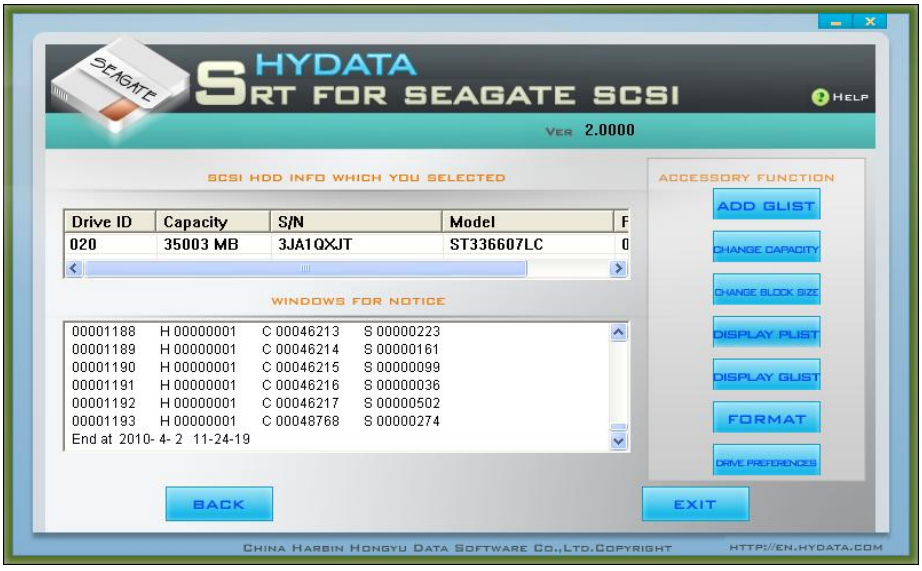
4.4.1 Add to GList

If you need to **add to GList** manually, you may select "**Add to GList**" button, fill the LBA value in the **Edit Box**.

You may record LBA value when encountering damage sectors, and use "**Accessory Function**" to repair.

4.4.2 Display PList

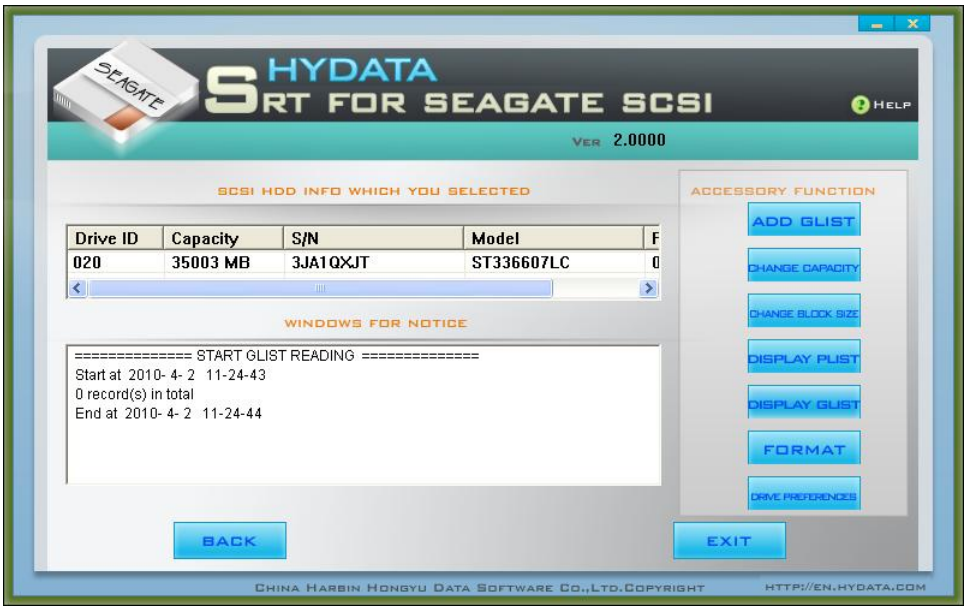
View number of PList and location



4.4.3 Display GList

View number of GList and location

If the running speed became slow, and the dialog box shows error when adding bad sectors to GList, you may use this function to view if the GList is already full.



4.4.4 Change HDD Capacity HPA

HPA belongs to a standard of SCSI, in other words, it is used to set the max sector number for the drive to be read and hides the high-end info by changing HPA. The max sector number can be written to certain places, even if you connect this drive to other computer, you cannot see the contents hidden in normal condition, so the tool like fdisk as well as system would deal with it considered as a small capacity drive. This standard must be supported by SCSI drive firmware. HPA can be used in many ways, e.g., we can change a 73GB drive into 36GB.

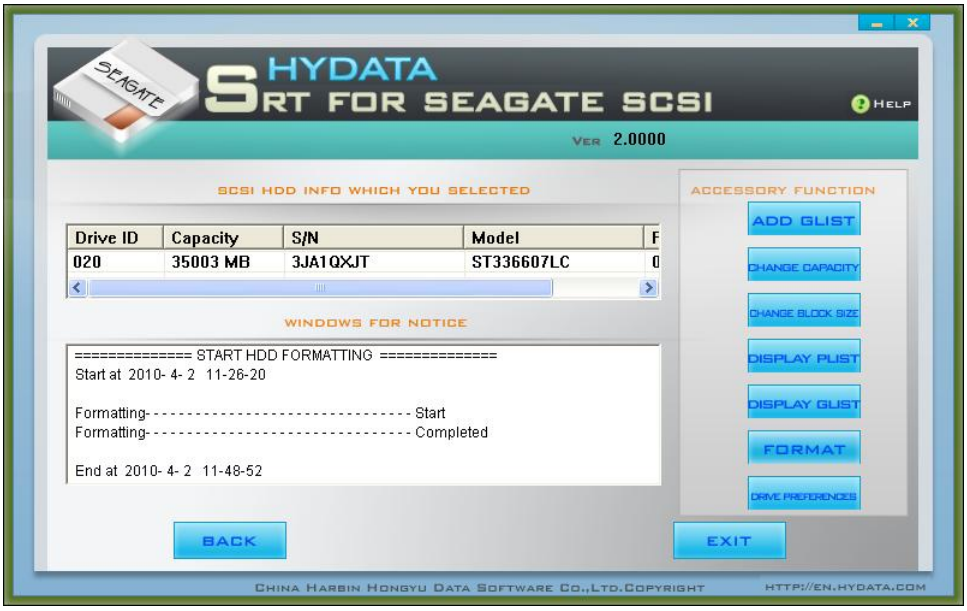
If you want to change drive capacity to the max, you should click **MAX** in the check box and max capacity will be set by system default.

4.4.5 Change Block Size

This function is used to change sector size in bytes, and the max is 2048. Non-standard sector size is usually adopted for many special serves in RAID system, e.g. 520 byte per sector. It will become effective immediately after changing (depending on drive firmware support), and it's necessary to perform factory low level format (LLF) on the supported device again after changing.

4.4.6 HDD Formatting

This function is used to format HDD



This function can repair damage drives. Factory LLF can completely repair ECC bad tracks existing on drive surface or logical error caused by running, even many maintenance departments always repair such kind of patient drives using this function. SCSI drives with "0 LBA" fault can be fixed through LLF regardless of data contained on drive.

In fact, there are still many skills for drive formatting, so we suggest you use Standard LLF or Format & Rebuild GList to repair bad sectors only.

To perform factory LLF, you must order targeter to format storage media with LUN designated, in the easiest mode, not sending any parameter, and the targeter will perform formatting using default format. Two steps are provided in actual formatting process, first, physical media is formatted, representing header, data and ECC information will be written to each sector. Next, physical block mapped to logical block. Finally, defect block will be reassigned when scanning the storage media the second time. Corresponding functional order must be chosen before using formatting command because command setting required for parameter formatting. Only in this way, the drive setting can be consistent with your desired mode parameters to complete formatting.

In SCSI technical manual, formatting parameters list's structure: 0~3 Byte contains the header, the following 4~8 Byte is optional initial mode descriptors with variable length.

The following are optional defect descriptors, so, a parameter list is necessary when sending an initial mode or defect list via commands.

The parameter list header which is in 2~3 Byte contains defect list length except control bit in 1 Byte. The length may be zero, and the defect number can be concluded from list length and command itself in 1 Byte. The following is detailed description for control bit in 1 Byte.

- FOV (Format Option Valid): DPR, DCR, STP, IP and DSP are valid, only when set FOV to "1". Otherwise, these bits will be set to "0", and targeter will use default value.
- DPR (Disable PList): set DPR to "1", PList will not be transferred to targeter. However, PList is provided by device manufacturer, keep unchanged.
- STP (Stop Format): this control bit will be set when a PList or GList which is used to perform formatting could be received by targeter while not be found or read. Command will be ended by the state of "Check Condition" under two situations. When set STP to "1", the targeter will terminate format in abnormal condition and gets ready for "Medium Error".
- IP (Initial Parameter), when set IP to "1", indicating parameter list contains an initial mode descriptor.
- DSP (Disable Save Parameter): in general all mode parameters will be saved during the course of format. When set DSP to 1, this action is disabled.
- Imm (Immediately): set Imm to "1", representing state returned on receipt of parameter list. Or state won't be returned before task completed.
- VS (Vendor Specific): if set IP to "1", representing that parameter list header followed by an initial mode descriptor. This mode as one byte sequence will be written to each logical block in the form of data.
- IP-MOD: these control bits allow the targeter to modify part of initial mode per logical block. 01b represents the first four bytes per logical block should contain LBN (logical block number). 10b represents each physical block should contain LBN. 00b represents that initial mode should be unchanged. 11b is reserved.
- Mode Length: describes initial mode length.
- Initial Mode: mode will be written to every logical block when formatting. The mode is repeated until the whole logical block is filled in.

The rest parameter blocks are made up of defect descriptors. Please refer to them in the following individual section.

Defect Descriptors

Block format (000b)

The four bytes of descriptors contain LBN where the defect block locates, and the list must be set up in ascending order when using block format. One LBN might be related to many sectors.

Defect Descriptors of Block Format

0	（MSB）
1	**Block Number of Defect Block**
2	
3	（LSB）

Index Format (100b)

Index pulse describes start position of each track on the drive. The first four bytes of Index format contain defect cylinders and defect heads.

Defect Descriptors of Index Format

0	（MSB）
1	**Cylinder Number of Defect Block**
2	（LSB）
3	Heads
4	（MSB）
5	
6	**Defect Position Bytes after Index**
7	（LSB）

The rest 4 bytes contain defect position came from index and measured by Byte. If the value is FFFFFFFFh in the first 4 bytes, we consider the whole disk to be damaged. Because drives support different sector length, only index format can be used for defect list format (that is PList) by HDD vendors.

FFFFFFFFh is often considered as -1, it corresponds to the interpretation of signed int. Although -1 is easier than FFFFFFFFh in pronunciation, the number digit is not clear.

Sector Format

Sector Format is similar to Index Format in structure, but its 4~7 Byte contains sector number of defect block. Herein sector number FFFFFFFFh represents the whole track is defective.

Defect Descriptor of Sector Format

0	（MSB）
1	**Cylinder Number of Defect Block**
2	（LSB）
3	Head Number
4	（MSB）
5	**Defect Sector**
6	
7	（LSB）

It’s necessary to understand SCSI factory LLF parameters well for IP mode, hence format with IP mode are not involved in wizard version.

4.4.7 HDD Setting

This function is used to select automatic read-write operation after rebooting and sets the cache number, the system default is 3.

AWRE：Automatic Write Reallocation Enable

ARRE：Automatic Read Reallocation Enable

4.5 Appendix

4.5.1 HYDATA SOFTWARE End-User License Agreement ("EULA")

Reading carefully:

Please make sure that you have read and understood all the rights and restrictions mentioned in End-User License Agreement ("**Agreement**").

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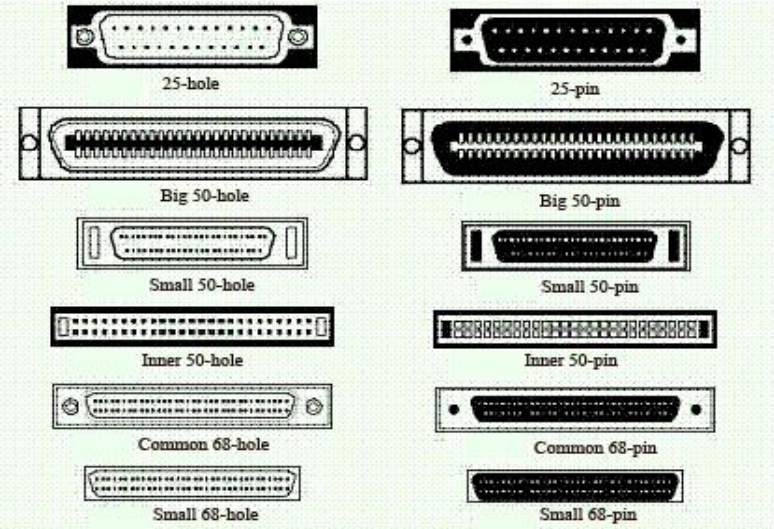
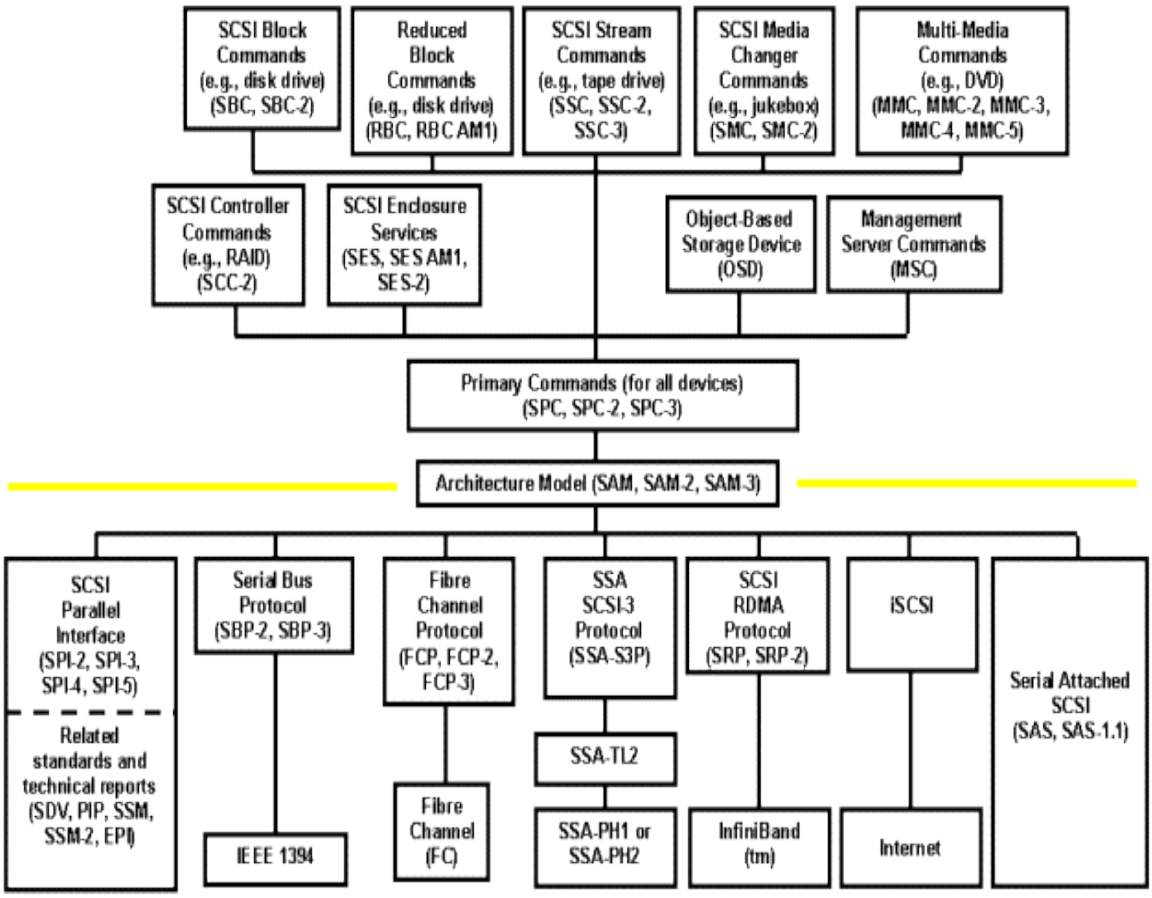
4.5.2 Various SCSI Interfaces



4.5.3 SCSI Command Set Diagram


SCSI Block Commands (e.g., disk drive) (SBC, SBC-2)
Reduced Block Commands (e.g., disk drive) (RBC, RBC AM1)
SCSI Stream Commands (e.g., tape drive) (SSC, SSC-2, SSC-3)
SCSI Media Changer Commands (e.g., jukebox) (SMC, SMC-2)
Multi-Media Commands (e.g., DVD) (MMC, MMC-2, MMC-3, MMC-4, MMC-5)
SCSI Controller Commands (e.g., RAID) (SCC-2)
SCSI Enclosure Services (SES, SES AM1, SES-2)
Object-Based Storage Device (OSD)
Management Server Commands (MSC)
Primary Commands (for all devices) (SPC, SPC-2, SPC-3)
Architecture Model (SAM, SAM-2, SAM-3)
SCSI Parallel Interface (SPI-2, SPI-3, SPI-4, SPI-5)
Related standards and technical reports (SDV, PIP, SSM, SSM-2, EPI)
Serial Bus Protocol (SBP-2, SBP-3)
IEEE 1394
Fibre Channel Protocol (FCP, FCP-2, FCP-3)
Fibre Channel (FC)
SSA SCSI-3 Protocol (SSA-S3P)
SSA-TL2
SSA-PH1 or SSA-PH2
SCSI RDMA Protocol (SRP, SRP-2)
InfiniBand (tm)
iSCSI
Internet
Serial Attached SCSI (SAS, SAS-1.1)

5 Product Upgrade and Customer Service

5.1 Product Upgrade Description

This product series mainly focus on repairing SCSI HDD, which has been subject to several revisions.

- HYDATA SCSI Drive Firmware Data Recovery Tool
- SRT FOR SEAGATE SCSI HDD (this version) and SRT FOR IBM SCSI
- SCSITOOL-HASP Key Version and SCSITOOL-Card Version (Professional)

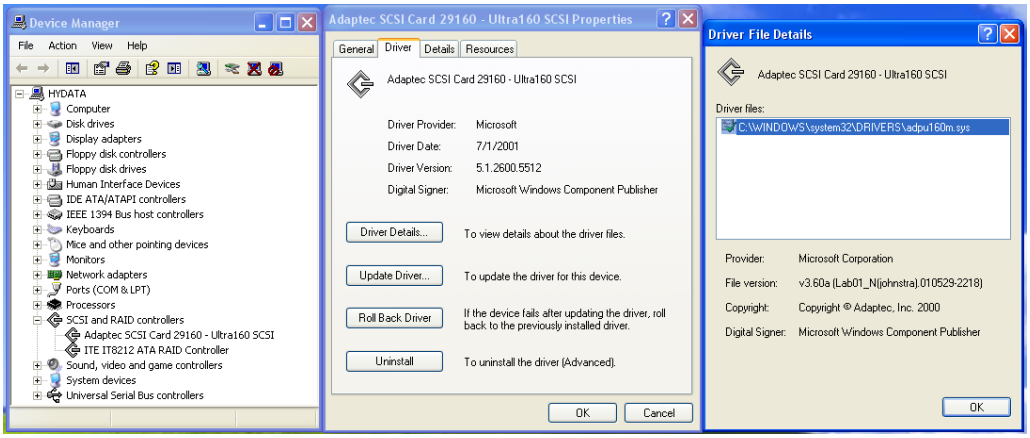
The products above will be suitable for ordinary users, technicians who use different brand drives and professional data recovery staff according to function and difference in usage.

HYDATA SOFTWARE will fix product faults continuously according to user feedbacks and test reports**,** and regularly upgrade. HYDATA SOFTWARE reserves all rights for any improvement to SRT FOR SEAGATE SCSI HDD.

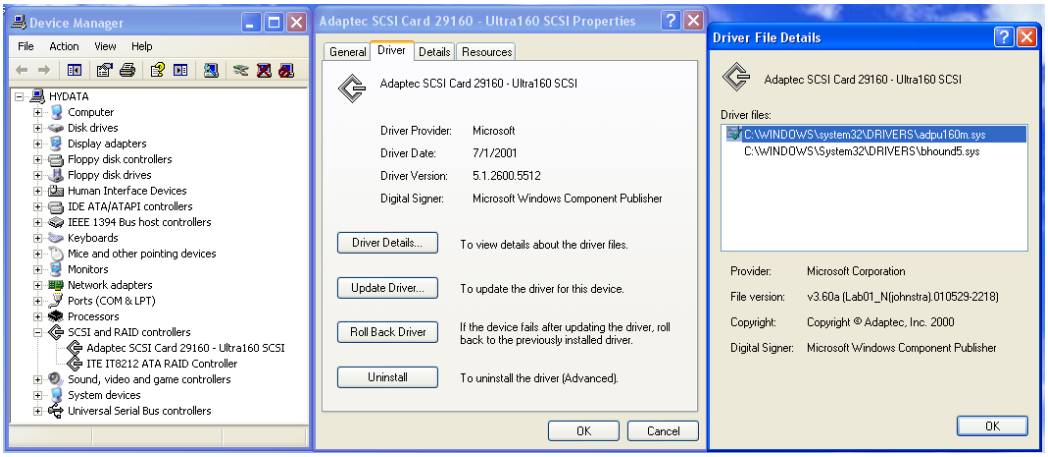
5.2 FAQs

Q1: "Driving is abnormal, quit program!" notice appears during software installation, click "Ok", the software will exit current program automatically, unable to repair or perform other operations.

To operate hard drive, software will send commands through device driver. The device driver can be identified only when installing driver program on operating system. See the figure:



But some software will add multiple driver program files during the process of installation, and it will lead to the state of abnormal driving. The figure is as follows:



Under the circumstances you may uninstall other software or reinstall system. Ensure the uniqueness of driver program files.

Q2: I can’t find solutions in Technical Support?

A: HYDATA SOFTWARE owns a perfect after-sale service system, we will regularly select customers who have problems in common and launch these cases in Technical Support. In addition, every type of software before long would have a separate sub-station to display upgrade, suggestions and some related knowledge. Welcome to our mail service system http://service.hydata.com.html.

Q3: How to identify genuine users?

A: We can identify genuine user through payment credentials and clients information which you have filled out.

Q4: I want to call technical support, but I can't find related contacts.

A: Technical Support is affiliated with software development department with higher confidentiality, so telephone and network are not allowed. The client's Email must be filtered through the mail gateway first. Recently HYDATA SOFTWARE has already built a perfect mail service system, so we can handle users' suggestions and consultations ASAP.

Q5: If the genuine user sends email to Technical Support, how long can get a replay?

A: HYDATA SOFTWARE has an excellent customer service mail system, if you encounter problems when using this software, please contact support@hydata.com. In business day, HYDATA Technical Support promises to reply within 24 hours. We could solve problems much faster during actual work. Please make detailed descriptions via email best with related screenshots in attachment, because it'll be helpful for Technical Support to give you a prompt reply through running environment evaluation.

5.3 Customer Service Contacts

SRT FOR SEAGATE SCSI TECHNOLOGY R&D CENTER

CHINA HARBIN HYDATA SOFTWARE CO., LTD.

Add: Room 396,East Zone, Chuanbo Cyber Plaza, Nangang District, Harbin, Heilongjiang Prov., China
Tel: +86 451 87529888 Fax: +86 451 87529888
Customer QQ :287529888
Contact: Zhe Feng
Website: http://en.hydata.com

Product Sale Email: sales@hydata.com
Technical Support Email: support@hydata.com

As SCSI technology R&D department, we have better technology than **SRT FOR SEAGATE SCSI HDD**.

If you still have questions unsolved, please contact:

HYDATA DATA RECOVERY CENTER

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Customer QQ :515533322
Technical Support: +86 451 82549777
Website: http://www.hydata.net

Business Consultation Email: sales@hydata.com